UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

# ECOLOGICAL SITE DESCRIPTION

## ECOLOGICAL SITE CHARACTERISTICS

Site Type: Rangeland

Site ID: R042XC017NM

Site Name: Bottomland

Precipitation or Climate Zone: 10 to 13 inches

Phase:

## PHYSIOGRAPHIC FEATURES

| Narrative: |
| --- |
| This site occurs on broad valleys, flood plains or basins at the lowest position in relation to adjacent landscapes. It is found at the mouth of intermittent drainages or draws and is flooded 1 to 3 times a year. Slopes are level to nearly level, averaging less than 3 percent. Elevations range from 2,842 to 4,000 feet. |

Land Form:
1. Flood plain
2. Valley Floor
3. Basin Floor

Aspect:
1. Not significant
2.
3.

| | Minimum | Maximum |
| --- | --- | --- |
| Elevation (feet) | 2,842 | 4,000 |
| Slope (percent) | 1 | 3 |
| Water Table Depth (inches) | N/A | N/A |

| Flooding: | Minimum | Maximum |
| --- | --- | --- |
| Frequency | Rare | Frequent |
| Duration | Very Brief | Brief |

| Ponding: | Minimum | Maximum |
| --- | --- | --- |
| Depth (inches) | N/A | N/A |
| Frequency | | |
| Duration | | |

| Runoff Class: |
| --- |
| |

## CLIMATIC FEATURES

Narrative:
The climate of the area is “semi-arid continental”.

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity – short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. This site receives overflow from heavy summer rains periodically. Occasionally water will stand on the surface for short periods. When this happens frequently, or when water stands for longer periods, only the plants that can tolerate inundation, such as giant sacaton, will survive. During drought periods or when long periods occur between overflows, a variety of plants will move in and establish on the site.

| | Minimum | Maximum |
|---|---|---|
| Frost-free period (days): | 180 | 221 |
| Freeze-free period (days): | 199 | 240 |
| Mean annual precipitation (inches): | 10.0 | 13.0 |

Monthly moisture (inches) and temperature ($^0$F) distribution:

| | Precip. Min. | Precip. Max. | Temp. Min. | Temp. Max. |
|---|---|---|---|---|
| January | 0.40 | 0.42 | 20.6 | 59.7 |
| February | 0.40 | 0.41 | 25.2 | 65.6 |
| March | 0.41 | 0.43 | 31.4 | 72.7 |
| April | 0.58 | 0.63 | 40.4 | 81.5 |
| May | 1.28 | 1.35 | 49.6 | 88.7 |
| June | 1.40 | 1.46 | 59.1 | 95.4 |
| July | 1.62 | 1.64 | 63.3 | 96.4 |
| August | 1.79 | 1.84 | 61.6 | 94.8 |
| September | 1.81 | 2.20 | 54.1 | 88.5 |
| October | 1.16 | 1.41 | 40.7 | 80.4 |
| November | 0.43 | 0.47 | 28.4 | 68.7 |
| December | 0.48 | 0.51 | 20.9 | 61.1 |

**Climate Stations:**

(1) NM0600, Artesia, NM - Period of record 1961 - 1990
(2) NM0992, Bitter Lakes WL Refuge, NM - Period of record 1961 - 1990
(3) NM1469, Carlsbad, NM - Period of record 1961 - 1990
(4) NM293792, Hagerman, NM - Period of record 1961 - 1990
(5) NM299563, Waste Isolation Plant, NM - Period of record 1961 - 1990
(2) NM4346, Jal, NM - Period of record 1961 - 1990

## INFLUENCING WATER FEATURES

| Narrative: |
| --- |
| This site may be associated or influenced by wetlands and/or streams but does not normally meet wetland criteria. |

Wetland description:

| System | Subsystem | Class |
| --- | --- | --- |
| N/A | | |

| If Riverine Wetland System enter Rosgen Stream Type: |
| --- |
| |

**REPRESENTATIVE SOIL FEATURES**

| Narrative: |
|---|
| The soils of this site are deep and well drained to moderately well drained. The surface textures are loamy fine sand, very fine sandy loam, fine sandy loam, sandy loam, silty loam and silty clay loam. The underlying layers may be loamy fine sand to silty clay loam. The soils have rapid to moderately slow permeability. Available water holding capacity is moderate to high. |

Parent Material Kind: Alluvium
Parent Material Origin: Mixecd

Surface Texture:

| | |
|---|---|
| 1. loamy fine sand | 2. very fine sandy loam |
| 3. fine sandy loam | 4. sandy loam |
| 5. silt loam | 6. silty clay loam |

Surface Texture Modifier:

| |
|---|
| 1. N/A |
| 2. |
| 3. |

| | |
|---|---|
| Subsurface Texture Group: | SICL |
| Surface Fragments <=3” (% Volume): | N/A |
| Surface Fragments >3” (% Volume): | N/A |
| Subsurface Fragments <=3” (%Volume): | 0 – 52 |
| Subsurface Fragments >=3” (%Volume): | N/A |

| | Minimum | Maximum |
|---|---|---|
| Drainage Class: | Well | Well |
| Permeability Class: | Slow | Moderate |
| Depth (inches): | >72 | >72 |
| Electrical Conductivity (mmhos/cm): | 0.0 | 4.0 |
| Sodium Absorption Ratio: | N/A | N/A |
| Soil Reaction (1:1 Water): | 7.4 | 8.4 |
| Soil Reaction (0.1M CaCl2): | N/A | N/A |
| Available Water Capacity (inches): | 3 | 8 |
| Calcium Carbonate Equivalent (percent): | N/A | N/A |

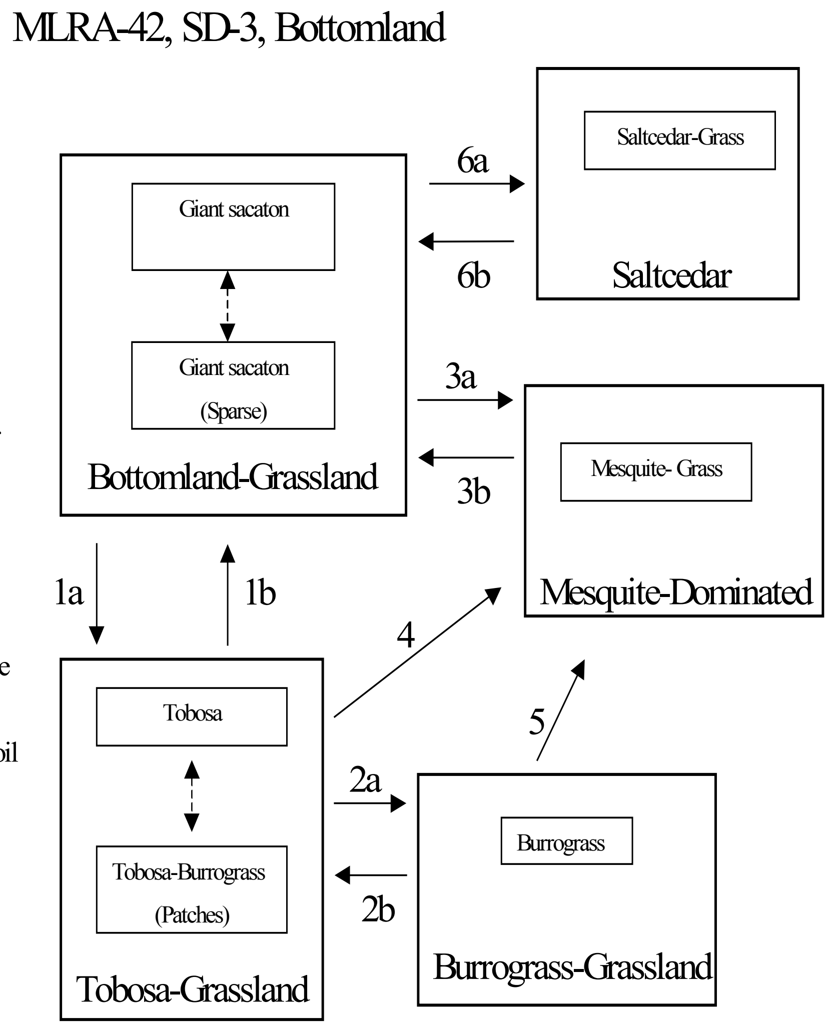
## PLANT COMMUNITIES

### Ecological Dynamics of the Site:

### Overview

The Bottomland site occurs on broad valleys and flood plains at the lowest positions on the landscape and is subject to periodic flooding. This periodic flooding and deep wetting essentially determine vegetation patterns on this site. The Bottomland site is associated with and often found at the mouth of Draw sites. The potential plant community exhibits a tall grass aspect largely dominated by giant sacaton. Soil drying due to overgrazing, gullying, and redirection or blockage of water flow may cause the transition to a tobosa-dominated state. A state dominated by burrograss may result due to continued loss of grass cover, erosion, and soil surface sealing—especially on silt loam and silty clay loam textured surface soils. A mesquite-dominated state may result from the loss of grass cover and dispersal of mesquite seed. Saltcedar may invade in response to changes in the historical flow regimes and the introduction of its seed—especially along stream channels or on soils adjacent to areas with a high water table.

Plant Communities and Transitional Pathways (diagram)




1a. Soil drying due to gullying, redirection of water flow, or overgrazing.
1b. Shape and stabilize gullies, restore water distribution, prescribed grazing.

2a. Loss of grass cover, erosion, surface soil sealing.
2b. Erosion control, break up soil crusts, range seeding ?, prescribed grazing.

3a. 4, 5. Seed dispersal, loss of grass cover, soil drying, reduced competition from grasses.
3b. Erosion control, Brush control, seeding, prescribed grazing.

6a. (May require saline affected soils?) Seed introduction and dispersal, disturbance to existing vegetation and hydrology. (This transition is also possible from Tobosa-Grassland and Burrograss-Grasslands states)

6b. Brush control with follow-up treatment and monitoring.

# MLRA 42; SD-3; Bottomland

## Grassland

•Giant sacaton community
•Run-in setting
•Grass and litter cover very high
•Dev-Pima complex, 0-3 percent slopes
•Eddy Co., NM

## Shrub-Dominated

•Mesquite-Alkali sacaton community in slight depression
•Giant sacaton is absent
•Cover of grasses moderate
•Large inter connected bare patches
•Note soil surface sealing

## Shrub-Dominated

•Mesquite-Tobosa community, with fair amount of burrograss
•Grasses present inside shrub canopy
•Gully and heavy mesquite in background
•Physical soil crusts prevalent
•Pima silt loam, 0-1 percent slopes
•Eddy Co., NM

Historic Climax Plant Community

Plant Community Name: ______________________

Plant Community Sequence Number: 1 Narrative Label: HCPC

Plant Community Narrative:

**State Containing Historic Plant Community**

**Bottomland Grassland**: The historic plant community is principally dominated by giant sacaton. Some additional grass species representative of this site include alkali sacaton, tobosa, vine mesquite, plains bristlegrass, and twoflower trichloris. Fourwing saltbush and mesquite are two of the more common shrubs associated with this site, but in the historic community they are sparsely scattered across the site. Giant sacaton has the capability to produce large amounts of aboveground biomass, which provides important forage for livestock and helps to slow runoff, increase infiltration, and protect the site from erosion. Grazing in the spring, deferring grazing in the fall, or during dry summers, can maximize forage production.[4] Mowing giant sacaton during the summer may improve forage quality and accessibility while minimizing negative effects on production.[3] Fire has produced mixed results depending on time of year and fire intensity. Several growing seasons may be required for giant sacaton to recover pre-burn production levels. Overgrazing, drought, or fire can cause a decrease in giant sacaton, vine mesquite, alkali sacaton, plains bristlegrass, and twoflower trichloris. A sparser, less vigorous sacaton community may result. Continued loss of grass cover increases erosion, effectively drying the site causing the transition to an alternate grassland state (Tobosa Grassland).

Diagnosis: Giant sacaton is the dominant grass. Grass cover is uniform. Litter cover is high, and bare patches are few and less than 2 m in length. Shrubs are sparse, averaging less than three percent canopy cover.

| Ground Cover (Aveage Percent of Surface Area). | |
|---|---|
| Grasses & Forbs | 35 – 40 |
| Bare ground | 15 – 20 |
| Surface gravel | |
| Surface cobble and stone | 0 to 2 |
| Litter (percent) | 40 – 45 |
| Litter (average depth in cm.) | 5 |

Plant Community Annual Production (by plant type):

| Plant Type | Low | RV | High |
|---|---|---|---|
| | Annual Production (lbs/ac) | | |
| Grass/Grasslike | 2125 | 3188 | 4250 |
| Forb | 175 | 262 | 350 |
| Tree/Shrub/Vine | 200 | 300 | 400 |
| Lichen | | | |
| Moss | | | |
| Microbiotic Crusts | | | |
| Totals | 2500 | 3750 | 5000 |

**Plant Community Composition and Group Annual Production:** Plant species are grouped by annual production **not** by functional groups.

Plant Type - Grass/Grasslike

| Group Number | Scientific Plant Symbol | Common Name | Species Annual Production | Group Annual Production |
|---|---|---|---|---|
| 1 | SPWR2 | giant sacaton | 2438 | 2625 |
| 2 | PLMU3 | tobosa | 263 | 375 |
| 2 | SPAI | alkali sacaton | | |
| 3 | PAOB | vine-mesquite | 263 | 375 |
| 3 | SEVU2 | plains bristlegrass | | |
| 4 | TRAL2 | white tridens | 113 | 188 |
| 4 | BOBA3 | cane bluestem | | |
| 4 | CHCR | twoflower trichloris | | |
| 5 | 2GP | other grasses | 113 | 188 |

Plant Type - Tree/Shrub/Vine

| Group Number | Scientific Plant Symbol | Common Name | Species Annual Production | Group Annual Production |
|---|---|---|---|---|
| 6 | ATCA2 | furwing saltbush | 113 | 188 |
| 7 | PRGL2 | mesquite | 38 | 113 |
| 8 | RHMI3 | littleleaf sumac | 38 | 113 |
| 8 | FAPA | Apacheplume | | |
| 8 | FLCE | American tarbush | | |
| 9 | 2SHRUB | other shrubs | 38 | 113 |

Plant Type – Forb

| | | | | |
|---|---|---|---|---|
| 10 | LELA2 | peppergrass mustard | 75 | 188 |
| 10 | SPHAE | globemallow | | |
| 10 | CUPA | coyote melon | | |
| 10 | HEAN3 | annual sunflower | | |
| 11 | 2FORB | other forbs | 75 | 188 |

Plant Type - Lichen

| Group Number | Scientific Plant Symbol | Common Name | Species Annual Production | Group Annual Production |
|---|---|---|---|---|
| | | | | |
| | | | | |

Plant Type - Moss

| Group Number | Scientific Plant Symbol | Common Name | Species Annual Production | Group Annual Production |
|---|---|---|---|---|
| | | | | |
| | | | | |

Plant Type - Microbiotic Crusts

| Group Number | Scientific Plant Symbol | Common Name | Species Annual Production | Group Annual Production |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

Other grasses which could appear on this site include: burrograss, sideoats grama, blue grama, sprangletop, threeawns, ring muhly, ear muhly, silver bluestem, and fluffgrass.

Other woody plants include: catclaw, desertwillow, javalinabush, creosote bush, and New Mexico walnut.

Other forbs include: threadleaf groundsel, wooly groundsel, wooly paperflower, desert holly, filaree and rayless goldenrod.

Plant Growth Curves
Growth Curve ID NM2817
Growth Curve Name: HCPC
Growth Curve Description: SD-3 Bottomland HCPC Warm Season Plant Community

| Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 5 | 10 | 10 | 25 | 30 | 15 | 5 | 0 | 0 |

**Additional States:**

***Tobosa Grassland***: This state is characterized by the predominance of tobosa. On fine-textured soils that receive surface run-in water, tobosa may attain dense almost pure stands. On drier sites that receive less water due to gullying, or due to decreased infiltration, associated with loss of grass cover, tobosa occurs in scattered patches with large areas of bare ground. Burrograss is the sub-dominant species. In the absence of grazing, tobosa tends to stagnate and accumulates large amounts of standing dead material. Rotational grazing, or burning during years with adequate precipitation following fire may help to maximize tobosa production and forage quality.[1,12] Burning during years with below average precipitation may limit increases in tobosa yield the first year following fire.[6]

Diagnosis: Tobosa is the dominant grass species. Grass cover is variable (depending on the degree of site degradation) ranging from uniform to patchy.

**Transition to Tobosa Grassland (1a)** The transition to a tobosa-dominated community is believed to result from decreased available soil moisture due to the redirection or blockage of run-in water, gullying, or overgrazing. Roads or other physical barriers on site or off site may cause the redirection or blockage of run-in water. Reduction of overland flow and decreased residence time of stand water may favor tobosa dominance. Tobosa is favored by sites that receive periodic flooding, but cannot withstand extended periods of inundation. Overgrazing increases runoff rates and gully formation, reduces infiltration, effectively drying the site. Sites with finer textured soils may have a greater susceptibility for dominance by tobosa. [12]

Key indicators of approach to transition:

- Decreased vigor and cover of giant sacaton
- Increase in the amount of tobosa
- Reduced overland flow and residence time of standing water
- Formation of gullies or deepening of existing channels

**Transition back to Bottomland Grassland (1b)** The natural hydrology of the site must be restored. Culverts, turnouts, or rerouting roads may help re-establish natural overland flow, if roads or trails have blocked or altered the flow of run-in water. Erosion control structures or shaping and filling gullies may help regain natural flow patterns and establish vegetation if the flow has been channeled. Prescribed grazing will help establish proper forage utilization and maintain grass cover and litter necessary to protect the site from accelerated erosion.

***Burrograss Grassland***: Burrograss is the dominant species. Tobosa is typically present in varying amounts, usually in patches or clumps occupying the more moist depressions. Burrograss ranks poor as a forage grass, but begins growth early and is used to some extent when young and green. Burrograss is favored by calcareous fine textured soils and spreads by seed and stolons. It produces large amounts of seed with wiry awns that help in dissemination, and in augering the hardened callus (tip of the seed) into the soil. The ability of burrograss to auger into soils enables it to establish and expand on bare soils prone to crust over with physical and biological crusts.

Diagnosis: Burrograss is the dominant grass species. Grass cover is variable ranging from patchy to very patchy. Large bare areas are present and interconnected. Physical crusts are present and may occupy most of the bare areas.

**Transition to Burrograss Grassland (2a)** Loss of grass cover, decreased soil moisture, soil surface sealing, and erosion enable this transition. As grass cover declines, organic matter and infiltration decrease. Erosion increases, removing soil and nutrients from bare areas, which results in soil sealing. Burrograss produces substantial amounts of viable seed and is one of the few grasses able to maintain, and even increase, on bottomland soils that are sealed by biological and physical crusts.

Key indicators of approach to transition:
- Decrease in cover of tobosa
- Increased amount of bare ground
- Increased evidence of physical and biological crusts.

**Transition back to Tobosa Grassland (2b**) Erosion control structures may help regain natural overland flow and increase vegetation cover (see transition1b above). Re-establishing grass cover will further decrease erosion and increase infiltration. Breaking up physical crusts by soil disturbance may promote infiltration and seedling emergence. Seeding may be necessary if inadequate seed source remains. Prescribed grazing will help establish proper forage utilization and maintain grass cover.

***Mesquite-Dominated State***:
This state is characterized by the dominance of mesquite, and by accelerated erosion. Grass cover is variable, but typically patchy.

Diagnosis: Mesquite is the dominant species in aspect and composition. Grass cover is typically patchy with large, interconnected bare areas present. Giant sacaton and alkali sacaton are absent or restricted to small patches. Tobosa or burrograss are the dominant grasses on this site. Rills and gullies may be common and actively eroding.

**Transition to Mesquite-Dominated (3a, 4, 5)** The reasons for different pathways in transitions to a mesquite-dominated state versus a tobosa or burrograss grassland with few shrubs are not known. Dispersal of shrub seed, persistent loss of grass cover, and competition between shrubs and remaining grasses for resources may drive this transition. Loss of grass cover reduces infiltration, decreasing available soil moisture necessary for grass seedling establishment.

Reduced soil moisture may favor mesquite establishment and survival. Accelerated erosion due to loss of grass cover can relocate organic matter and nutrients from shrub interspaces, and concentrate them around shrub bases.[14] This relocation of resources further increases the shrubs competitive advantage.

Key indicators of approach to transition:

- Increase in size and frequency of bare patches.
- Loss of grass cover in shrub interspaces.
- Increased signs of erosion.

**Transition back to Bottomland Grassland (3b)** Erosion control methods such as shaping and filling gullies, net wire diversions, rock and brush dams, etc. may be needed to curtail erosion and restore site hydrology. Brush control will be necessary to overcome competition between shrubs and grass seedlings. Seeding may expedite recovery or may be necessary if an adequate seed source is no longer remaining. Prescribed grazing will help ensure adequate deferment and proper forage utilization following grass establishment. The degree to which this site is capable of recovery depends on the restoration of hydrology, the extent of degradation to soil resources, and adequate rainfall necessary to establish grasses.

***<u>Saltcedar State</u>***: Saltcedar is an aggressive invader that typically invades on fine-textured soils where its roots can reach the water table, but once established it can survive without access to ground water. It reaches maximum density where the water table is from 1.5 to 6 m deep, and forms more open stands where the water table is deeper. [9,10] Saltcedar is a prolific seed producer. It is resistant to fire, periods of inundation with water, salinity, and re-sprouts following cutting. Saltcedar can also increase soil salinity by up-taking salts and concentrating them in its leaves and subsequent shedding of the leaves to the soil surface.

<u>Diagnosis</u>: This state is characterized by the presence of saltcedar. Saltcedar cover is variable ranging from sparse to dense. Densities may depend on such variables as depth to ground water, timing and duration of flood events, and soil texture and salinity. Grass cover varies in response to saltcedar density.

**Transition to Saltcedar State (6a**) It is not know if this transition occurs only on saline affected soils, or if it can occur on non-saline sites. Salty Bottomland sites typically have a higher susceptibility to the invasion of saltcedar. The invasion of saltcedar is associated with saline soils, the presence of saltcedar on adjacent sites and dispersal of its seed, and disturbance to existing vegetation or hydrology. Saltcedar propagules must be present to invade and establish on bottomland sites. Disturbance such as fire, grazing, or drought may facilitate the establishment of saltcedar by decreasing the vigor of native vegetation and providing bare areas for saltcedar seedling establishment with minimal competition. Changes in seasonal timing, rate and volume of run-in water may facilitate the establishment of saltcedar on Bottomland sites.[8] Damming rivers has reduced flow volume and caused shifts in the timing of peak flow from spring to summer. The reduced flows have increased fine sediments, creating the ideal conditions for saltcedar seedling establishment. Summer water discharges provide water at times consistent with saltcedar seed production. Increases in salinity due to return of irrigation water to streams and ditches may also support the establishment of saltcedar. (This transition should also possible from the Tobosa-Grassland and Burrograss-Grassland states).

Key indicators of approach to transition:

- Increase in size and frequency of bare patches.
- Changes in timing and volume of peak discharge
- Increased soil salinity
- Presence of saltcedar propagules

**Transition back to Bottomland Grassland (6b)** Saltcedar control is costly and often labor intensive. Control programs utilizing herbicide, or herbicide in conjunction with mechanical control or prescribed fire have proven effective in some instances. [5,7,11] Without restoring historical flow regimes, extensive follow-up management may be necessary to maintain the bottomland grassland.[13]

## ECOLOGICAL SITE INTERPRETATIONS

**Animal Community:**

This site provides habitats which support a resident animal community that is characterized by black-tailed jackrabbit, yellow-faced pocket gopher, coyote, meadowlark, mourning dove, scaled quail, sparrow hawk, Western spadefoot toad and Western diamondback rattlesnake.

Where this site includes riparian vegetation along the Pecos and Black rivers, the resident animal community is characterized by raccoon, gray fox, muskrat, red-winged blackbird, summer tanager, ferruginous hawk, mourning dove, Gambel's quail, killdeer, tree lizard, Eastern fence lizard, tiger salamander, leopard frog, bullfrog and checkered garter shake.

Most resident birds and Bullock's oriole, blue grosbeak, painted bunting, Swainson's hawk and mourning dove nest. Where aquatic macrophytes occur, yellow-throated warbler nest. Sandhill crane and long-billed curlew winter along the Pecos River and American avocet and black-necked stilt utilize this site during migration. The golden eagle utilizes larger trees for roosting and occasionally, nesting.

**Hydrology Functions:**

The runoff curve numbers are determined by field investigations using hydrolic cover conditions and hydrologic soil sgroups.

| Hydrologic Interpretations | |
|---|---|
| Soil Series | Hydrologic Group |
| Bippus | B |
| Bigetty | C |
| Glendale | B |
| Harkey | B |
| Largo | B |

**Recreational Uses:**

This site offers recreation potential for hiking, nature observation and photography in addition to antelope, quail and dove hunting.

Natural beauty is enhanced by the constrast between this lush vegetated site and the drier, more barren sites which surround it.

**Wood Products:**

This site has no real potential for wood products. Where woody species have increased, they can be used for curiosities for small furniture.

## Other Products:

This site is well suited for all kinds and classes of livestock, during all seasons of the year. It is best suited for cows during the growing season. Periodic removal of excess coarse stalk material by burning, shredding or mowing every other year will help to keep new growth avaialble to livestock. Burning, if practiced, should be done in late winter or early spring when soil surface moisture is present. Retrogression is characterized by a decrease in vine-mesquite and vigor of giant sacaton. Alkali sacaton, plains bristlegrass and twoflower trichloris decrease. This causes an increase in tobosa to a point of being a colony type of vegetation. Continued retrogression can cause severe water erosion that can destroy the potential of this site.

## Other Information:

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

| Similarity Index | Ac/AUM |
|---|---|
| 100 - 76 | 1.0 – 2.3 |
| 75 – 51 | 2.0 – 3.3 |
| 50 – 26 | 3.4 – 6.0 |
| 25 – 0 | 6.1 - + |

### Plant Preference by Animal Kind:

| | Code | Species Preference | Code |
|---|---|---|---|
| Stems | S | None Selected | N/S |
| Leaves | L | Preferred | P |
| Flowers | F | Desirable | D |
| Fruit/Seeds | F/S | Undesirable | U |
| Entire Plant | EP | Not Consumed | NC |
| Underground Parts | UP | Emergency | E |
| | | Toxic | T |

Animal Kind: Livestock

Animal Type: Cattle

| Common Name | Scientific Name | Plant Part | Forage Preferences | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | J | F | M | A | M | J | J | A | S | O | N | D |
| giant sacaton | Sporobolus wrightii | EP | U | U | U | D | D | D | P | P | D | U | U | U |
| alkali sacaton | Sporobolus airoides | EP | U | U | U | D | D | D | P | P | D | U | U | U |
| vine-mesquite | Panicum obtusum | EP | NC | NC | NC | NC | NC | NC | P | P | P | D | D | NC |
| plains bristlegrass | Setaria vulpiseta | EP | D | D | D | D | D | P | P | P | P | D | D | D |
| white tridens | Tridens albescens | EP | N/S | N/S | N/S | N/S | D | D | D | D | D | N/S | N/S | N/S |
| cane bluestem | Bothriochloa brabinodis | EP | D | D | D | D | D | P | P | P | D | D | D | D |
| twoflower trichloris | Chloris crinita | EP | D | D | D | D | D | D | P | P | P | D | D | D |
| fourwing saltbush | Atriplex canescens | EP | P | P | P | P | P | D | D | D | D | D | P | P |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| annual sunflower | Helianthus annuum | EP | N/C | N/C | N/C | N/C | D | D | D | D | D | N/C | N/C | N/C |

## Supporting Information

{PRIVATE}Associated Sites:
{PRIVATE}Site Name Site ID Site Narrative

Similiar Sites:
{PRIVATE}Site Name Site ID Site Narrative
State Correlation:
This site has been correlated with the following states: Texas

Inventory Data References:

{PRIVATE}Data Source | Number of Records | Sample Period | State | County

Type Locality:

Relationship to Other Established Classifications:

Other References:
Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains Major Land Resource Area of New Mexico. This site has been mapped and correlated with soils in the following soil surveys: Eddy, Lea and Chaves counties.

| Characteristic Soils Are: | |
|---|---|
| Glendale fine sandy loam | Glendale very fine sandy loam |
| Glendale loam | Bippus silty clay loam |
| Bigetty silty clay loam | Largo loam overflwo, 0 to1 % slopes |
| Harkey very fine sandy loam, 0 to 1 % slope | Harkey sandy loam |
| Pecos clay loam | |
| Other Soils included are: | |
| | |

**References**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Site Description Approval:

| {PRIVATE}Author | Date | Approval | Date |
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| Don Sylvester | 06/05/80 | Don Sylvester | 06/05/80 |

Site Description Revision:

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|---|---|---|---|
| George Chavez | 05/14/02 | George Chavez | 05/20/03 |
| David Trujillo | 05/19/03 | | |